

The Contribution of mLearning to the Study of Local Culture in the Malaysian University Context

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**THE CONTRIBUTION OF MLEARNING TO THE STUDY OF LOCAL CULTURE IN
THE MALAYSIAN UNIVERSITY CONTEXT**

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“Alang-alang menyeluk pekasam. Biar sampai ke pangkal lengan.” Malay proverb.

“If at first, the idea is not absurd, then there is no hope for it.” Albert Einstein



ABSTRACT

This thesis is concerned with the impact of mobile learning (mLearning) on the study of local culture at Malaysian universities. For convenience, the term Local Cultural Studies (LCS) is given to Humanities subjects related to the teaching and learning of Malay culture, for example: Local History, Local Culture and National Heritage, Malay Wood Craft, Malay Drum, Cooking, Batik Textile, Ceramic, and Local Drama. These subjects are not as popular as Science and Engineering and are often referred to as ‘dying traditional knowledge’ with an uncertain future. They have a lesser degree of significance in modern Malaysian society in achieving a ‘developed country’ status. One motivation for introducing mLearning into LCS subjects is to make them more interesting: the learning activities and the subjects should appear more modern by linking them to the latest technology. The fact that all students own mobile phones in Malaysian universities creates an opportunity to use mLearning for the benefit of LCS. In addition, mLearning could be used to create student-generated content to add richer multimedia learning resources as one of the major challenges for LCS is the limited availability of resources. An exploratory preliminary study with managers and content developers within mobile application companies confirmed there were limited local mobile content and little incentive to develop more. A major focus of this thesis was to investigate two approaches to overcoming this problem: (1) the development of culturally appropriate interface design guidelines that could be used to assist developers and academics in the production of local content; and (2) involving students in creating local content in student-generated mLearning activities.

This largely qualitative study focused on gaining an understanding of mLearning’s contributions to the study of local culture from the perspective of academics and students at predominantly Malaysian public universities. The research was designed in two stages. In Stage 1, Nielsen’s user interface design guidelines were first adapted to include two cultural design principles based on local Malay cultural content and aesthetic values and then used as a probe to uncover academic and student views on culturally appropriate design during a heuristic evaluation of three mobile applications with a Malay cultural focus. The heuristic evaluation of the mLearning applications also served to raise awareness of mLearning and opened the way for interviews with academics and focus group discussions with students about their pre-existing experiences with mobile technologies and perspectives on mLearning. The interviews and focus group discussions were audio recorded, transcribed, translated, and analysed using a thematic analysis approach. Consequently at Stage 2, student-generated activities using mobile devices were introduced. These included students making videos, taking photographs and sound recording interviews in their LCS subjects using a mix of mobile devices such as mobile phones, laptops and cameras. Then a second round of interviews and focus group discussions was conducted to understand participants’ perspectives of mLearning and in particular, mLearning involving student-generated content. Data was analysed again using thematic analysis.

The first key finding of the study identified academic and students’ perspectives on culturally appropriate design guidelines related to the usability of mLearning LCS applications. The participants confirmed that suitable local cultural content appropriate to the subject and local aesthetic values were important and could motivate learning. The most important local

cultural aspect was found to be the use of local language, Bahasa Malaysia, or bilingual interfaces. A more complex aspect of interface design was the inclusion of philosophical values relating to Malay and Islamic philosophy. The study also demonstrated that it is inadequate to exclusively emphasise culture. General usability principles were also observed as significant, for instance, consistency, minimalist design, efficiency, flexibility and error management, and should be taken into consideration in designing LCS applications.

Furthermore, the findings identified participants' pre-existing experiences and perspectives of mobile technologies and mLearning. They used mobile phones extensively for personal leisure and interest although students were more advanced than academics in exploring software applications for mobile phones. At university the majority of participants used their mobile phones for communication for educational purposes. However, they did this without being aware that these activities were mLearning-related. They also identified challenges for introducing mLearning: lack of local mLearning content and limited ethical policies to regulate mLearning were of concern for both academics and students.

Changes to participants' perspectives on mLearning were observed following the student-generated content activities in Stage 2. Academics were more aware and stated that they were more open to allowing students to use mobile phones for student-generated activities. Students benefited by gaining new multimedia skills and accomplishing better quality assignments using mobile devices. They reported creating, accessing and sharing multimedia digital content (videos, photos and audio files) both within the classroom and during fieldwork at cultural sites. This was found to reduce the challenge of limited local content for LCS subjects. Peer assistance and collaboration from other participants reduced technical challenges. Therefore, both academics and students showed more positive attitudes and interest in using mobile devices for facilitating learning in LCS after experiencing student-generated activities.

The contributions of this thesis are therefore:

- Understandings of culturally appropriate design in the Malay context which could assist mobile developers to produce more local content or could be used by academics or students to guide them in creating local content for learning. These understandings might further be extended to other cultural contexts.
- Insights into how academics' and students' established mobile phone practices, as well as their pre-existing uses of mobile devices for educational purposes, could lead to greater awareness and a wider adoption of mLearning to improve LCS subjects.
- A holistic understanding of participants' perspectives on student-generated content in mLearning activities as a way to remedy the lack of content for LCS studies. This could be applied also to other subject areas.